



DECEMBER 2011 LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

RICHMOND, VA
RICHMOND INTERNATIONAL AIRPORT (KRIC)
 Lat:37° 30'N Long: 77° 19'W Elev (Ground) 164 Feet
 Time Zone : EASTERN WBAN: 13740 ISSN#: 0198-537X



| Date 1 | Temperature °F | | | | | | Deg Days BASE 65° | | WEATHER 10 | SNOW/ICE ON GND(IN) | | PRECIPITATION ON GND(IN) | | PRESSURE (INCHES OF HG) | | WIND SPEED = MPH DIR = TENS OF DEGREES | | | | | | | | Date 24 |
|------------------------------|----------------|--------------|--------------|-------------------------|------------------------|-------------------------------------|----------------------|--------------|-----------------------------------------------|-------------------------------|------------------------------------------------|-----------------------------|------------------------|----------------------------|----------------------------|-------------------------------------------|-------------------------------|------------------------|-----------|-------------|-------------------------------|----|----|------------|
| | MAXIMUM 2 | MINIMUM 3 | AVERAGE 4 | DEP FROM NORMAL 5 | AVERAGE DEW PT 6 | AVERAGE WET BULB 7 | HEATING 8 | COOLING 9 | | 0700 LST 11 | 1300 LST 12 | 2400 LST 13 | 2400 LST 14 | AVERAGE STATION 15 | AVERAGE SEA LEVEL 16 | RESULTANT SPEED 17 | RES DIR 18 | AVERAGE SPEED 19 | MAXIMUM | | | | | |
| | | | | | | | | | | | | | | | | | | | 3-SEC | | 2-MIN | | | |
| | | | | | | | | | DEPTH 11 | WATER- EQUIV 12 | SNOW- FALL 13 | WATER EQUIV 14 | | | SPEED 17 | DIR 18 | AVERAGE SPEED 19 | SPEED 20 | DIR 21 | SPEED 22 | DIR 23 | | | |
| 01 | 54 | 32 | 43 | -2 | 27 | 36 | 22 | 0 | | 0 | | 0.0 | 0.00 | 30.07 | 30.29 | 4.8 | 34 | 5.1 | 22 | 36 | 18 | 34 | 01 | |
| 02 | 62 | 28 | 45 | 1 | 27 | 37 | 20 | 0 | | 0 | | 0.0 | 0.00 | 30.18 | 30.40 | 0.6 | 27 | 4.4 | 18 | 01 | 15 | 02 | 02 | |
| 03 | 53 | 34 | 44 | 0 | 31 | 38 | 21 | 0 | | 0 | | 0.0 | 0.00 | 30.41 | 30.61 | 2.6 | 03 | 3.7 | 15 | 04 | 12 | 02 | 03 | |
| 04 | 59 | 32 | 46 | 3 | 38 | 42 | 19 | 0 | BR | 0 | | 0.0 | 0.00 | 30.30 | 30.49 | 0.7 | 16 | 1.3 | 11 | 21 | 9 | 21 | 04 | |
| 05 | 68 | 39 | 54 | 11 | 50 | 52 | 11 | 0 | FG+ FG BCFG BR | 0 | | 0.0 | 0.00 | 30.12 | 30.29 | 4.0 | 15 | 4.8 | 22 | 15 | 17 | 15 | 05 | |
| 06 | 71 | 58 | 65* | 22 | 59 | 61 | 0 | 0 | RA | 0 | | 0.0 | T | 29.90 | 30.07 | 8.7 | 19 | 9.2 | 23 | 22 | 17 | 21 | 06 | |
| 07 | 72* | 41 | 57 | 14 | 56 | 58 | 8 | 0 | RA BR SQ | 0 | | 0.0 | 0.78 | 29.53 | 29.74 | 6.8 | 22 | 14.8 | 64* | 31 | 51* | 29 | 07 | |
| 08 | 50 | 33 | 42 | 0 | 28 | 36 | 23 | 0 | | 0 | | 0.0 | 0.00 | 29.98 | 30.22 | 4.0 | 31 | 4.5 | 22 | 33 | 17 | 32 | 08 | |
| 09 | 52 | 30 | 41 | -1 | 35 | 39 | 24 | 0 | | 0 | | 0.0 | 0.00 | 30.11 | 30.30 | 1.3 | 22 | 2.0 | 12 | 27 | 7 | 21 | 09 | |
| 10 | 51 | 33 | 42 | 0 | 27 | 36 | 23 | 0 | | 0 | | 0.0 | 0.00 | 30.14 | 30.37 | 7.8 | 36 | 8.3 | 21 | 02 | 16 | 34 | 10 | |
| 11 | 46 | 27 | 37 | -4 | 19 | 30 | 28 | 0 | | 0 | | 0.0 | 0.00 | 30.40 | 30.62 | 3.6 | 03 | 4.5 | 15 | 03 | 12 | 06 | 11 | |
| 12 | 47 | 28 | 38 | -3 | 29 | 34 | 27 | 0 | | 0 | | 0.0 | 0.00 | 30.36 | 30.55 | 2.3 | 36 | 2.5 | 10 | 03 | 8 | 03 | 12 | |
| 13 | 56 | 30 | 43 | 2 | 29 | 36 | 22 | 0 | BCFG | 0 | | 0.0 | 0.00 | 30.24 | 30.44 | 2.8 | 35 | 3.4 | 17 | 01 | 14 | 01 | 13 | |
| 14 | 54 | 38 | 46 | 5 | 30 | 40 | 19 | 0 | | 0 | | 0.0 | 0.00 | 30.21 | 30.40 | 1.4 | 17 | 2.7 | 9 | 15 | 8 | 15 | 14 | |
| 15 | 67 | 43 | 55 | 15 | 44 | 50 | 10 | 0 | | 0 | | 0.0 | 0.00 | 29.96 | 30.13 | 13.5 | 21 | 13.9 | 31 | 21 | 25 | 22 | 15 | |
| 16 | 62 | 40 | 51 | 11 | 41 | 47 | 14 | 0 | RA BR | 0 | | 0.0 | 0.35 | 29.91 | 30.14 | 1.8 | 30 | 6.9 | 25 | 04 | 21 | 04 | 16 | |
| 17 | 44 | 30 | 37 | -3 | 29 | 35 | 28 | 0 | RA BR | 0 | | 0.0 | 0.01 | 30.01 | 30.21 | 5.1 | 34 | 5.4 | 18 | 34 | 15 | 31 | 17 | |
| 18 | 46 | 30 | 38 | -2 | 25 | 32 | 27 | 0 | | 0 | | 0.0 | 0.00 | 30.09 | 30.30 | 1.8 | 32 | 3.0 | 13 | 35 | 12 | 35 | 18 | |
| 19 | 56 | 27 | 42 | 2 | 27 | 36 | 23 | 0 | | 0 | | 0.0 | 0.00 | 30.06 | 30.24 | 8.7 | 20 | 9.0 | 25 | 21 | 22 | 24 | 19 | |
| 20 | 55 | 42 | 49 | 10 | 35 | 43 | 16 | 0 | | 0 | | 0.0 | 0.00 | 29.96 | 30.15 | 2.6 | 20 | 4.2 | 29 | 32 | 14 | 22 | 20 | |
| 21 | 66 | 48 | 57 | 18 | 56 | 57 | 8 | 0 | RA BR | 0 | | 0.0 | 0.17 | 29.82 | 30.00 | 11.3 | 20 | 11.7 | 29 | 21 | 23 | 21 | 21 | |
| 22 | 69 | 51 | 60 | 21 | 57 | 59 | 5 | 0 | RA FG+ MIFG BR | 0 | | 0.0 | 0.31 | 29.81 | 30.01 | 3.8 | 16 | 6.2 | 23 | 20 | 18 | 19 | 22 | |
| 23 | 67 | 47 | 57 | 18 | 44 | 50 | 8 | 0 | RA | 0 | | 0.0 | T | 29.85 | 30.08 | 4.6 | 33 | 10.7 | 32 | 32 | 26 | 32 | 23 | |
| 24 | 50 | 33 | 42 | 4 | 31 | 38 | 23 | 0 | | 0 | | 0.0 | 0.00 | 30.17 | 30.40 | 2.3 | 03 | 3.7 | 23 | 03 | 20 | 03 | 24 | |
| 25 | 54 | 29 | 42 | 4 | 33 | 39 | 23 | 0 | | 0 | | 0.0 | 0.00 | 30.08 | 30.25 | 7.3 | 22 | 7.9 | 22 | 23 | 18 | 23 | 25 | |
| 26 | 53 | 34 | 44 | 6 | 26 | 36 | 21 | 0 | | 0 | | 0.0 | 0.00 | 30.06 | 30.28 | 4.4 | 32 | 6.7 | 26 | 36 | 21 | 35 | 26 | |
| 27 | 60 | 37 | 49 | 11 | 40 | 44 | 16 | 0 | RA BR | 0 | | 0.0 | 0.41 | 29.68 | 29.81 | 9.2 | 19 | 13.0 | 40 | 16 | 30 | 17 | 27 | |
| 28 | 53 | 31 | 42 | 4 | 26 | 37 | 23 | 0 | | 0 | | 0.0 | 0.00 | 29.59 | 29.84 | 9.7 | 27 | 10.5 | 32 | 25 | 25 | 27 | 28 | |
| 29 | 49 | 25* | 37* | -1 | 26 | 33 | 28 | 0 | | 0 | | 0.0 | 0.00 | 29.85 | 30.05 | 3.2 | 18 | 4.0 | | | 9 | 17 | 29 | |
| 30 | 59 | 31 | 45 | 8 | 32 | 40 | 20 | 0 | | 0 | | 0.0 | 0.00 | 29.80 | 30.00 | 8.0 | 18 | 8.3 | 25 | 20 | 20 | 19 | 30 | |
| 31 | 64 | 40 | 52 | 15 | 39 | 46 | 13 | 0 | | 0 | | 0.0 | 0.00 | 29.75 | 29.98 | 6.3 | 26 | 8.6 | 56 | 11 | 26 | 14 | 31 | |
| 57.1 | | | 35.5 | 46.3 | Σ | 35.4 | 41.8 | 18.5 | 0.0 | < MONTHLY AVERAGES TOTALS > | | | | 0.0 | 2.03 | 30.01 | 30.21 | 2.1 | 23 | 6.6 | < MONTHLY AVERAGES | | | |
| 7.4 | | | 4.4 | 5.9 | | <----- DEPARTURE FROM NORMAL -----> | | | | -1.09 | SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3 | | | | | | | | | | | | | |
| DEGREE DAYS | | | | | | | | | GREATEST 24-HR PRECIPITATION : 0.78 DATE : 07 | | | | SEA LEVEL PRESSURE | | | | DATE TIME | | | | | | | |
| MONTHLY | | | | | | | | | GREATEST 24-HR SNOWFALL : 0.0 DATE : | | | | MAXIMUM : 30.70 | | | | 11 1059 | | | | | | | |
| TOTAL DEPARTURE | | | | | | | | | GREATEST SNOW DEPTH : 0 DATE : | | | | MINIMUM : 29.44 | | | | 07 1902 | | | | | | | |
| SEASON TO DATE | | | | | | | | | NUMBER OF -> DAYS WITH | | | | MAXIMUM TEMP >= 90 : 0 | | | | MINIMUM TEMP <= 32 : 14 | | | | PRECIPITATION >= 0.01 INCH: 6 | | | |
| HEATING : 573 -175 1127 -344 | | | | | | | | | MAXIMUM TEMP <= 32 : 0 | | | | MINIMUM TEMP <= 0 : 0 | | | | PRECIPITATION >= 0.10 INCH: 5 | | | | | | | |
| COOLING : 0 -1 1900 465 | | | | | | | | | THUNDERSTORMS : 0 | | | | HEAVY FOG : 2 | | | | SNOWFALL >= 1.0 INCH : 0 | | | | | | | |

**DECEMBER 2011
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
DECEMBER 2011

WBAN # 13740

| Date | FOR HOUR (LST) ENDING AT | | | | | | | | | | | | Date | FOR HOUR (LST) ENDING AT | | | | | | | | | | | | Date | Sum of Hourly Data | 2400 LST Water Equiv. |
|------|--------------------------|---|---|---|---|---|---|---|---|----|----|------|------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|-----------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | |
| 01 | | | | | | | | | | | | | 01 | | | | | | | | | | | | 01 | 0.00 | 0.00 | |
| 02 | | | | | | | | | | | | | 02 | | | | | | | | | | | | 02 | 0.00 | 0.00 | |
| 03 | | | | | | | | | | | | | 03 | | | | | | | | | | | | 03 | 0.00 | 0.00 | |
| 04 | | | | | | | | | | | | | 04 | | | | | | | | | | | | 04 | 0.00 | 0.00 | |
| 05 | | | | | | | | | | | | | 05 | | | | | | | | | | | | 05 | 0.00 | 0.00 | |
| 06 | | | | | | | | | | | | | 06 | | | | T | | | | | | | | 06 | T | T | |
| 07 | T | T | T | T | | | | | | | | | 07 | T | T | 0.01 | 0.03 | 0.04 | T | 0.14 | 0.31 | 0.15 | 0.09 | 0.01 | T | 07 | 0.78 | 0.78 |
| 08 | | | | | | | | | | | | | 08 | | | | | | | | | | | | 08 | 0.00 | 0.00 | |
| 09 | | | | | | | | | | | | | 09 | | | | | | | | | | | | 09 | 0.00 | 0.00 | |
| 10 | | | | | | | | | | | | | 10 | | | | | | | | | | | | 10 | 0.00 | 0.00 | |
| 11 | | | | | | | | | | | | | 11 | | | | | | | | | | | | 11 | 0.00 | 0.00 | |
| 12 | | | | | | | | | | | | | 12 | | | | | | | | | | | | 12 | 0.00 | 0.00 | |
| 13 | | | | | | | | | | | | | 13 | | | | | | | | | | | | 13 | 0.00 | 0.00 | |
| 14 | | | | | | | | | | | | | 14 | | | | | | | | | | | | 14 | 0.00 | 0.00 | |
| 15 | | | | | | | | | | | | | 15 | | | | | | | | | | | | 15 | 0.00 | 0.00 | |
| 16 | | | | | | | | | | | | | 16 | | T | T | 0.02 | 0.02 | 0.12 | 0.06 | 0.07 | 0.01 | 0.02 | T | 0.03 | 16 | 0.35 | 0.35 |
| 17 | 0.01 | T | | | | | | | | | | | 17 | | | | | | | | | | | | 17 | 0.01 | 0.01 | |
| 18 | | | | | | | | | | | | | 18 | | | | | | | | | | | | 18 | 0.00 | 0.00 | |
| 19 | | | | | | | | | | | | | 19 | | | | | | | | | | | | 19 | 0.00 | 0.00 | |
| 20 | | | | | | | | | | | | | 20 | | | | | | | | | | | | 20 | 0.00 | 0.00 | |
| 21 | | | | | T | T | T | T | T | | | | 21 | 0.05 | 0.03 | 0.05 | 0.04 | T | | | | | | T | 0.03 | 21 | 0.17 | 0.17 |
| 22 | | | | | | | | | | | | | 22 | | | | | | 0.01 | 0.21 | 0.06 | | | | 22 | 0.31 | 0.31 | |
| 23 | T | T | | | T | T | | | | | | | 23 | | | | | | | | | | | | 23 | T | T | |
| 24 | | | | | | | | | | | | | 24 | | | | | | | | | | | | 24 | 0.00 | 0.00 | |
| 25 | | | | | | | | | | | | | 25 | | | | | | | | | | | | 25 | 0.00 | 0.00 | |
| 26 | | | | | | | | | | | | | 26 | | | | | | | | | | | | 26 | 0.00 | 0.00 | |
| 27 | | | | | | | | | | | T | 0.04 | 0.04 | 27 | 0.05 | T | 0.12 | 0.03 | 0.13 | | | | | 27 | 0.41 | 0.41 | | |
| 28 | | | | | | | | | | | | | 28 | | | | | | | | | | | | 28 | 0.00 | 0.00 | |
| 29 | | | | | | | | | | | | | 29 | | | | | | | | | | | | 29 | 0.00 | 0.00 | |
| 30 | | | | | | | | | | | | | 30 | | | | | | | | | | | | 30 | 0.00 | 0.00 | |
| 31 | | | | | | | | | | | | | 31 | | | | | | | | | | | | 31 | 0.00 | 0.00 | |

* Indicates sum of Hourly and Daily disagree.

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

| Time Period (Minutes) | 5 | 10 | 15 | 20 | 30 | 45 | 60 | 80 | 100 | 120 | 150 | 180 |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Precipitation (Inches) | 0.15 | 0.21 | 0.23 | 0.23 | 0.27 | 0.30 | 0.34 | 0.40 | 0.44 | 0.49 | 0.57 | 0.62 |
| Ending Date | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 |
| Ending Time (Hr/Min) | 1918 | 1922 | 1926 | 1933 | 1940 | 1954 | 1940 | 1954 | 2002 | 2032 | 2100 | 2115 |

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

Date and time are not entered for TRACE amounts.

REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

* = Extreme for the month (last occurrence if more than one).

T = Trace precipitation amount.

+ = also occurs on earlier date.

FG+ = Heavy fog, visibility .25 miles or less.

BLANK entries denote missing or unreported data.

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971-2000

WEATHER NOTATIONS

| QUALIFIER | WEATHER PHENOMENA | | |
|--------------------|-----------------------------------|--------------------|------------------------------------|
| DESCRIPTOR | PRECIPITATION | OBSCURATION | OTHER |
| BC Patches | DZ Drizzle | BR Mist | DS Duststorm |
| BL Blowing | GR Hail | DU Widespread Dust | FC Funnel Cloud |
| DR Low Drifting | GS Small Hail and/or Snow Pellets | FG Fog | +FC Tornado Waterspout |
| FZ Freezing | IC Ice Crystals | FU Smoke | PO Well-Developed Dust/Sand Whirls |
| MI Shallow | PL Ice Pellets | HZ Haze | |
| PR Partial | RA Rain | PY Spray | SQ Squalls |
| SH Shower(s) | SG Snow Grains | SA Sand | SS Sandstorm |
| TS Thunderstorm | SN Snow | VA Volcanic Ash | GL Glaze |
| VC In the Vicinity | UP Unkown Precipitation | | |

Intensity (as indicated on pages 4 to 6):
'+' = Heavy '' = Moderate '-' = Light

RICHMOND, VA DECEMBER 2011

Ceilometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR-SS), or midnight to midnight (MN-MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0-2 oktas, Partly Cloudy = 3-6 oktas, Cloudy = 7-8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

Station Augmentation-SANDSTON COOP
Lat/Lon:37.54417/-77.27583 Elevation:165
Distance:4 MI Dir:E
Augmented Elements:Temp, Precip, Snow
Equipment:MMTS, SRG, Snowboard

| Date | SUNSHINE | | CLOUDINESS (OKTAS) | | | | VISIBILITY (MILES) | | RESERVED |
|------------------------------------------------|---------------|------------------|--------------------|-----------|------------------|-----------|--------------------|---------|----------|
| | TOTAL MINUTES | PERCENT POSSIBLE | SR-SS | | MN-MN | | MINIMUM | MAXIMUM | |
| | | | Sky Cover | Satellite | Sky Cover | Satellite | | | |
| 01 | | | | | | | 10.00 | 10.00 | |
| 02 | | | | | | | 10.00 | 10.00 | |
| 03 | | | | | | | 10.00 | 10.00 | |
| 04 | | | | | | | 5.00 | 10.00 | |
| 05 | | | | | | | 0.00 | 10.00 | |
| 06 | | | | | | | 10.00 | 10.00 | |
| 07 | | | | | | | 3.00 | 10.00 | |
| 08 | | | | | | | 10.00 | 10.00 | |
| 09 | | | | | | | 7.00 | 10.00 | |
| 10 | | | | | | | 10.00 | 10.00 | |
| 11 | | | | | | | 10.00 | 10.00 | |
| 12 | | | | | | | 9.00 | 10.00 | |
| 13 | | | | | | | 7.00 | 10.00 | |
| 14 | | | | | | | 10.00 | 10.00 | |
| 15 | | | | | | | 10.00 | 10.00 | |
| 16 | | | | | | | 5.00 | 10.00 | |
| 17 | | | | | | | 3.00 | 10.00 | |
| 18 | | | | | | | 10.00 | 10.00 | |
| 19 | | | | | | | 10.00 | 10.00 | |
| 20 | | | | | | | 10.00 | 10.00 | |
| 21 | | | | | | | 4.00 | 10.00 | |
| 22 | | | | | | | 0.12 | 10.00 | |
| 23 | | | | | | | 10.00 | 10.00 | |
| 24 | | | | | | | 9.00 | 10.00 | |
| 25 | | | | | | | 10.00 | 10.00 | |
| 26 | | | | | | | 10.00 | 10.00 | |
| 27 | | | | | | | 1.75 | 10.00 | |
| 28 | | | | | | | 10.00 | 10.00 | |
| 29 | | | | | | | 10.00 | 10.00 | |
| 30 | | | | | | | 10.00 | 10.00 | |
| 31 | | | | | | | 10.00 | 10.00 | |
| MONTHLY AVGS | | | | | | | 7.87 | 10.00 | |
| SUNSHINE (Minutes) | | | | | | | | | |
| Total : 0 | | | | | Possible : 17909 | | | | |
| Percent Possible : 0 | | | | | | | | | |
| NUMBER OF DAYS WITH : SKY CONDITION | | | | | | | | | |
| Clear | | Partly CLDY | | Cloudy | | Missing | | | |
| MINIMUM VISIBILITY (MILES) | | | | | | | | | |
| <= .25 | | <= 3.0 | | | | >= 7.0 | | | |
| 2 | | 5 | | | | 23 | | | |

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2011

KRIC

WBAN # 13740

| HOUR (LST) | SKY COVER | CEILING 100's of FT. | SATELLITE | | VISIBILITY (MILES) | WEATHER | TEMPERATURE °F | | | WIND SPEED (MPH) DIRECTION Tens of Deg | PRESSURE (INCHES, HG) | | HOUR (LST) | SKY COVER | CEILING 100's of FT. | SATELLITE | | VISIBILITY (MILES) | WEATHER | TEMPERATURE °F | | | WIND SPEED (MPH) DIRECTION Tens of Deg | PRESSURE (INCHES, HG) | | | | | |
|------------------------------------------|-----------|-------------------------|---------------------------|----------------------|-----------------------|---------|-------------------|-----------|----------|-------------------------------------------------|----------------------------|---------|------------------------------------------|-----------|-------------------------|--------------|---------------------------|-----------------------|---------|----------------------|----------|-----------|-------------------------------------------------|--------------------------|----------------------------|-------------|--------------------------|---------|--------------|
| | | | Observation Time (LST) | Eff Cld Amt Oktas | | | DRY BULB | DEW POINT | WET BULB | | RELATIVE HUMIDITY (PCT) | STATION | | | | SEA LEVEL | Observation Time (LST) | | | Eff Cld Amt Oktas | DRY BULB | DEW POINT | | WET BULB | RELATIVE HUMIDITY (PCT) | SPEED (MPH) | DIRECTION Tens of Deg | STATION | SEA LEVEL |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUNRISE: 0705 DEC 01 SUNSET: 1652 | | | | | | | | | | | | | SUNRISE: 0710 DEC 07 SUNSET: 1651 | | | | | | | | | | | | | | | | |
| 01 | CLR | NC | | | 10.00 | | 37 | 29 | 34 | 73 | 9 | 36 | 29.95 | 30.15 | 01 | OVC | 045 | | | 10.00 | | 65 | 59 | 61 | 81 | 11 | 20 | 29.75 | 29.94 |
| 04 | CLR | NC | | | 10.00 | | 34 | 27 | 31 | 76 | 0 | 00 | 30.00 | 30.20 | 04 | OVC | 060 | | | 10.00 | -RA | 63 | 60 | 61 | 90 | 10 | 18 | 29.69 | 29.89 |
| 07 | CLR | NC | | | 10.00 | | 34 | 26 | 31 | 73 | 8 | 32 | 30.08 | 30.27 | 07 | BKN | 090 | | | 10.00 | | 64 | 59 | 61 | 84 | 15 | 18 | 29.65 | 29.83 |
| 10 | CLR | NC | | | 10.00 | | 44 | 26 | 37 | 49 | 13 | 35 | 30.14 | 30.34 | 10 | BKN | 075 | | | 10.00 | | 69 | 60 | 64 | 73 | 16 | 19 | 29.61 | 29.80 |
| 13 | FEW | 250 | | | 10.00 | | 51 | 25 | 40 | 36 | 8 | 32 | 30.11 | 30.30 | 13 | OVC | 032 | | | 10.00 | -RA | 70 | 60 | 64 | 71 | 18 | 19 | 29.48 | 29.67 |
| 16 | CLR | NC | | | 10.00 | | 53 | 25 | 41 | 34 | 8 | 32 | 30.11 | 30.30 | 16 | OVC | 044 | | | 3.00 | -RA | 67 | 61 | 63 | 81 | 22 | 22 | 29.41 | 29.59 |
| 19 | CLR | NC | | | 10.00 | | 40 | 31 | 36 | 70 | 0 | 00 | 30.14 | 30.34 | 19 | OVC | 080 | | | 3.00 | RA BR | 63 | 62 | 62 | 97 | 3 | 10 | 29.26 | 29.44 |
| 22 | CLR | NC | | | 10.00 | | 37 | 30 | 34 | 76 | 0 | 00 | 30.16 | 30.36 | 22 | OVC | 030 | | | 4.00 | -RA BR | 43 | 39 | 41 | 86 | 23 | 33 | 29.56 | 29.75 |
| SUNRISE: 0706 DEC 02 SUNSET: 1651 | | | | | | | | | | | | | SUNRISE: 0711 DEC 08 SUNSET: 1651 | | | | | | | | | | | | | | | | |
| 01 | CLR | NC | | | 10.00 | | 33 | 28 | 31 | 82 | 0 | 00 | 30.16 | 30.35 | 01 | BKN | 090 | | | 10.00 | | 41 | 37 | 39 | 86 | 3 | 31 | 29.70 | 29.89 |
| 04 | CLR | NC | | | 10.00 | | 28 | 25 | 27 | 89 | 3 | 12 | 30.16 | 30.36 | 04 | CLR | NC | | | 10.00 | | 41 | 33 | 38 | 73 | 7 | 28 | 29.82 | 30.02 |
| 07 | FEW | 200 | | | 10.00 | | 33 | 29 | 31 | 85 | 0 | 00 | 30.18 | 30.38 | 07 | FEW | 020 | | | 10.00 | | 38 | 29 | 34 | 70 | 9 | 31 | 29.99 | 30.19 |
| 10 | FEW | 250 | | | 10.00 | | 47 | 30 | 40 | 52 | 9 | 21 | 30.20 | 30.40 | 10 | CLR | NC | | | 10.00 | | 43 | 23 | 35 | 45 | 8 | 34 | 30.07 | 30.27 |
| 13 | SCT | 250 | | | 10.00 | | 61 | 22 | 45 | 22 | 8 | 25 | 30.15 | 30.34 | 13 | FEW | 250 | | | 10.00 | | 49 | 22 | 38 | 35 | 9 | 29 | 30.08 | 30.27 |
| 16 | SCT | 250 | | | 10.00 | | 61 | 22 | 45 | 22 | 5 | 30 | 30.16 | 30.36 | 16 | BKN | 250 | | | 10.00 | | 49 | 22 | 38 | 35 | 5 | 27 | 30.09 | 30.29 |
| 19 | CLR | NC | | | 10.00 | | 45 | 30 | 39 | 56 | 0 | 00 | 30.23 | 30.43 | 19 | SCT | 250 | | | 10.00 | | 39 | 30 | 35 | 70 | 0 | 00 | 30.15 | 30.34 |
| 22 | CLR | NC | | | 10.00 | | 42 | 28 | 36 | 58 | 8 | 02 | 30.30 | 30.50 | 22 | SCT | 250 | | | 10.00 | | 36 | 29 | 33 | 76 | 0 | 00 | 30.17 | 30.36 |
| SUNRISE: 0707 DEC 03 SUNSET: 1651 | | | | | | | | | | | | | SUNRISE: 0712 DEC 09 SUNSET: 1651 | | | | | | | | | | | | | | | | |
| 01 | CLR | NC | | | 10.00 | | 43 | 28 | 37 | 56 | 9 | 02 | 30.36 | 30.55 | 01 | BKN | 300 | | | 10.00 | | 33 | 28 | 31 | 82 | 0 | 00 | 30.17 | 30.36 |
| 04 | CLR | NC | | | 10.00 | | 37 | 28 | 34 | 70 | 6 | 01 | 30.39 | 30.58 | 04 | FEW | 250 | | | 10.00 | | 32 | 29 | 31 | 89 | 0 | 00 | 30.15 | 30.34 |
| 07 | FEW | 250 | | | 10.00 | | 34 | 27 | 31 | 76 | 6 | 01 | 30.43 | 30.63 | 07 | FEW | 250 | | | 10.00 | | 31 | 28 | 30 | 89 | 0 | 00 | 30.15 | 30.35 |
| 10 | FEW | 250 | | | 10.00 | | 46 | 33 | 40 | 61 | 8 | 06 | 30.47 | 30.67 | 10 | BKN | 250 | | | 10.00 | | 43 | 36 | 40 | 76 | 5 | 20 | 30.16 | 30.36 |
| 13 | BKN | 250 | | | 10.00 | | 51 | 31 | 42 | 46 | 5 | 11 | 30.43 | 30.63 | 13 | OVC | 050 | | | 10.00 | | 49 | 37 | 44 | 63 | 3 | 29 | 30.11 | 30.31 |
| 16 | BKN | 250 | | | 10.00 | | 52 | 31 | 43 | 45 | 0 | 00 | 30.40 | 30.60 | 16 | BKN | 065 | | | 10.00 | | 50 | 38 | 44 | 64 | 3 | 18 | 30.05 | 30.24 |
| 19 | BKN | 250 | | | 10.00 | | 44 | 32 | 39 | 63 | 0 | 00 | 30.43 | 30.63 | 19 | OVC | 035 | | | 10.00 | | 47 | 40 | 44 | 77 | 0 | 00 | 30.05 | 30.25 |
| 22 | OVC | 200 | | | 10.00 | | 43 | 35 | 40 | 73 | 0 | 00 | 30.42 | 30.61 | 22 | OVC | 220 | | | 10.00 | | 45 | 38 | 42 | 77 | 0 | 00 | 30.06 | 30.25 |
| SUNRISE: 0708 DEC 04 SUNSET: 1651 | | | | | | | | | | | | | SUNRISE: 0713 DEC 10 SUNSET: 1651 | | | | | | | | | | | | | | | | |
| 01 | FEW | 250 | | | 10.00 | | 37 | 34 | 36 | 89 | 0 | 00 | 30.38 | 30.57 | 01 | OVC | 200 | | | 10.00 | | 43 | 34 | 39 | 71 | 3 | 31 | 30.05 | 30.25 |
| 04 | CLR | NC | | | 5.00 | BR | 35 | 33 | 34 | 92 | 0 | 00 | 30.35 | 30.55 | 04 | OVC | 200 | | | 10.00 | | 42 | 30 | 37 | 63 | 9 | 01 | 30.05 | 30.25 |
| 07 | SCT | 250 | | | 6.00 | BR | 33 | 31 | 32 | 92 | 0 | 00 | 30.36 | 30.55 | 07 | OVC | 200 | | | 10.00 | | 40 | 30 | 36 | 68 | 6 | 35 | 30.11 | 30.31 |
| 10 | BKN | 250 | | | 8.00 | | 47 | 41 | 44 | 80 | 0 | 00 | 30.37 | 30.56 | 10 | BKN | 250 | | | 10.00 | | 45 | 29 | 38 | 54 | 14 | 01 | 30.20 | 30.39 |
| 13 | BKN | 250 | | | 10.00 | | 57 | 43 | 50 | 60 | 3 | 14 | 30.28 | 30.47 | 13 | BKN | 250 | | | 10.00 | | 50 | 28 | 41 | 43 | 13 | 36 | 30.16 | 30.36 |
| 16 | BKN | 250 | | | 10.00 | | 56 | 42 | 49 | 60 | 3 | 20 | 30.23 | 30.42 | 16 | SCT | 250 | | | 10.00 | | 49 | 27 | 40 | 43 | 7 | 03 | 30.16 | 30.36 |
| 19 | BKN | 220 | | | 10.00 | | 50 | 43 | 47 | 77 | 0 | 00 | 30.22 | 30.42 | 19 | CLR | NC | | | 10.00 | | 40 | 28 | 35 | 62 | 6 | 04 | 30.25 | 30.44 |
| 22 | SCT | 250 | | | 10.00 | | 46 | 42 | 44 | 86 | 0 | 00 | 30.22 | 30.42 | 22 | CLR | NC | | | 10.00 | | 37 | 20 | 31 | 50 | 9 | 02 | 30.30 | 30.50 |
| SUNRISE: 0709 DEC 05 SUNSET: 1651 | | | | | | | | | | | | | SUNRISE: 0714 DEC 11 SUNSET: 1651 | | | | | | | | | | | | | | | | |
| 01 | FEW | 300 | | | 8.00 | BCFG | 41 | 39 | 40 | 93 | 0 | 00 | 30.20 | 30.40 | 01 | CLR | NC | | | 10.00 | | 33 | 17 | 28 | 52 | 8 | 01 | 30.35 | 30.54 |
| 04 | VV | 002 | | | 0.00 | FG | 43 | 43 | 43 | 100 | 0 | 00 | 30.16 | 30.36 | 04 | CLR | NC | | | 10.00 | | 30 | 17 | 26 | 58 | 6 | 02 | 30.38 | 30.58 |
| 07 | OVC | 070 | | | 0.25 | FG | 45 | 44 | 45 | 96 | 3 | 34 | 30.16 | 30.36 | 07 | CLR | NC | | | 10.00 | | 27 | 18 | 24 | 69 | 6 | 36 | 30.43 | 30.63 |
| 10 | OVC | 070 | | | 2.50 | BR | 51 | 48 | 49 | 90 | 0 | 00 | 30.17 | 30.36 | 10 | CLR | NC | | | 10.00 | | 38 | 22 | 32 | 53 | 7 | 04 | 30.50 | 30.70 |
| 13 | BKN | 250 | | | 10.00 | | 64 | 52 | 57 | 65 | 9 | 18 | 30.10 | 30.29 | 13 | CLR | NC | | | 10.00 | | 44 | 19 | 35 | 37 | 6 | VR | 30.45 | 30.64 |
| 16 | BKN | 250 | | | 10.00 | | 66 | 54 | 59 | 65 | 11 | 14 | 30.03 | 30.23 | 16 | CLR | NC | | | 10.00 | | 44 | 18 | 35 | 35 | 0 | 00 | 30.41 | 30.61 |
| 19 | OVC | 240 | | | 10.00 | | 59 | 55 | 57 | 87 | 9 | 15 | 30.03 | 30.22 | 19 | CLR | NC | | | 10.00 | | 36 | 20 | 30 | 52 | 5 | 07 | 30.42 | 30.62 |
| 22 | OVC | 240 | | | 10.00 | | 60 | 56 | 58 | 87 | 8 | 16 | 30.02 | 30.21 | 22 | CLR | NC | | | 10.00 | | 32 | 22 | 29 | 67 | 0 | 00 | 30.43 | 30.63 |
| SUNRISE: 0709 DEC 06 SUNSET: 1651 | | | | | | | | | | | | | SUNRISE: 0714 DEC 12 SUNSET: 1652 | | | | | | | | | | | | | | | | |
| 01 | OVC | 065 | | | 10.00 | | 58 | 56 | 57 | 93 | 6 | 17 | 29.99 | 30.18 | 01 | BKN | 300 | | | 10.00 | | 28 | 22 | 26 | 78 | 5 | 35 | 30.42 | 30.62 |
| 04 | OVC | 095 | | | 10.00 | | 59 | 57 | 58 | 93 | 6 | 17 | 29.96 | 30.15 | 04 | OVC | 220 | | | 10.00 | | 30 | 25 | 28 | 82 | 3 | 01 | 30.39 | 30.59 |
| 07 | OVC | 009 | | | 10.00 | | 60 | 58 | 59 | 93 | 9 | 18 | 29.94 | 30.13 | 07 | BKN | 220 | | | 10.00 | | 30 | 25 | 28 | 82 | 5 | 01 | 30.38 | 30.58 |
| 10 | OVC | 012 | | | 10.00 | | 63 | 59 | 61 | 87 | 6 | 21 | 29.95 | 30.14 | 10 | OVC | 300 | | | 10.00 | | 39 | 29 | 35 | 67 | 5 | 35 | 30.40 | 30.60 |
| 13 | OVC | 120 | | | 10.00 | | 70 | 59 | 63 | 68 | 14 | 21 | 29.86 | 30.05 | 13 | OVC | 050 | | | 10.00 | | 46 | 31 | 40 | 56 | 3 | 35 | 30.36 | 30.55 |
| 16 | OVC | 075 | | | 10.00 | | 65 | 61 | 63 | 87 | 6 | 17 | 29.84 | 30.03 | 16 | OVC | 150 | | | 10.00 | | 46 | 32 | 40 | 58 | 0 | 00 | 30.30 | 30.50 |
| 19 | OVC | 080 | | | 10.00 | | 66 | 60 | 62 | 81 | 9 | 17 | 29.83 | 30.02 | 19 | OVC | 150 | | | 10.00 | | 42 | 33 | 38 | 71 | 0 | 00 | 30.30 | 30.49 |
| 22 | OVC | 060 | | | 10.00 | | 66 | 59 | 62 | 78 | 11 | 19 | 29.80 | 29.99 | 22 | FEW | 250 | | | 10.00 | | 36 | 32 | 34 | 85 | 0 | 00 | 30.30 | 30.50 |

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2011 KRIC

WBAN # 13740

| HOUR (LST) | SKY COVER | CEILING 100's of FT. | SATELLITE | | WEATHER | TEMPERATURE °F | | | WIND SPEED (MPH) DIRECTION Tens of Deg | PRESSURE (INCHES, HG) | | HOUR (LST) | SKY COVER | CEILING 100's of FT. | SATELLITE | | WEATHER | TEMPERATURE °F | | | WIND SPEED (MPH) DIRECTION Tens of Deg | PRESSURE (INCHES, HG) | | | | | |
|-----------------------------|-----------|-------------------------|---------------------------|----------------------|---------|-----------------------|----------|-----------|-------------------------------------------------|--------------------------|----------------------------|-----------------------------|-----------|-------------------------|-----------|--------------|---------|---------------------------|----------------------|-----------------------|-------------------------------------------------|--------------------------|-----------|----------|----------------------------|---------|--------------|
| | | | Observation Time (LST) | Eff Cld Amt Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | | WET BULB | RELATIVE HUMIDITY (PCT) | | | | STATION | SEA LEVEL | | Observation Time (LST) | Eff Cld Amt Oktas | VISIBILITY (MILES) | | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY (PCT) | STATION | SEA LEVEL |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUNRISE: 0715 DEC 13 | | | | | | SUNSET: 1652 | | | | | | SUNRISE: 0719 DEC 19 | | | | | | SUNSET: 1654 | | | | | | | | | |
| 01 | CLR | NC | | | 9.00 | 32 | 29 | 31 | 89 | 0 | 00 | 30.28 | 30.47 | 01 | CLR | NC | | | 10.00 | 29 | 24 | 27 | 82 | 0 | 00 | 30.15 | 30.35 |
| 04 | CLR | NC | | | 9.00 | 31 | 28 | 30 | 89 | 0 | 00 | 30.26 | 30.46 | 04 | SCT | 300 | | | 10.00 | 29 | 24 | 27 | 82 | 0 | 00 | 30.14 | 30.34 |
| 07 | FEW | 300 | | | 7.00 | 31 | 28 | 30 | 89 | 0 | 00 | 30.28 | 30.47 | 07 | FEW | 300 | | | 10.00 | 30 | 25 | 28 | 82 | 7 | 19 | 30.13 | 30.33 |
| 10 | CLR | NC | | | 10.00 | 43 | 32 | 38 | 65 | 7 | 34 | 30.29 | 30.48 | 10 | FEW | 300 | | | 10.00 | 41 | 28 | 36 | 60 | 10 | 21 | 30.12 | 30.32 |
| 13 | FEW | 300 | | | 10.00 | 53 | 28 | 42 | 38 | 8 | 03 | 30.23 | 30.42 | 13 | FEW | 300 | | | 10.00 | 53 | 28 | 42 | 38 | 11 | 22 | 30.01 | 30.21 |
| 16 | FEW | 300 | | | 10.00 | 54 | 29 | 43 | 38 | 7 | 33 | 30.20 | 30.39 | 16 | SCT | 300 | | | 10.00 | 54 | 28 | 43 | 37 | 14 | 22 | 29.97 | 30.17 |
| 19 | CLR | NC | | | 10.00 | 43 | 31 | 38 | 63 | 0 | 00 | 30.21 | 30.40 | 19 | SCT | 300 | | | 10.00 | 48 | 29 | 40 | 48 | 11 | 20 | 29.97 | 30.17 |
| 22 | CLR | NC | | | 10.00 | 38 | 29 | 34 | 70 | 5 | 35 | 30.23 | 30.43 | 22 | FEW | 300 | | | 10.00 | 45 | 29 | 38 | 54 | 7 | 19 | 29.96 | 30.15 |
| SUNRISE: 0716 DEC 14 | | | | | | SUNSET: 1652 | | | | | | SUNRISE: 0719 DEC 20 | | | | | | SUNSET: 1654 | | | | | | | | | |
| 01 | SCT | 110 | | | 10.00 | 42 | 26 | 36 | 53 | 3 | 31 | 30.23 | 30.42 | 01 | OVC | 160 | | | 10.00 | 43 | 32 | 38 | 65 | 6 | 19 | 29.93 | 30.13 |
| 04 | OVC | 075 | | | 10.00 | 41 | 30 | 37 | 65 | 0 | 00 | 30.22 | 30.42 | 04 | OVC | 100 | | | 10.00 | 51 | 30 | 42 | 45 | 10 | 22 | 29.93 | 30.13 |
| 07 | BKN | 085 | | | 10.00 | 38 | 27 | 34 | 65 | 0 | 00 | 30.23 | 30.43 | 07 | BKN | 240 | | | 10.00 | 49 | 30 | 41 | 48 | 7 | 29 | 29.96 | 30.15 |
| 10 | SCT | 300 | | | 10.00 | 49 | 30 | 41 | 48 | 3 | 06 | 30.26 | 30.45 | 10 | OVC | 210 | | | 10.00 | 50 | 33 | 43 | 52 | 0 | 00 | 30.02 | 30.22 |
| 13 | OVC | 300 | | | 10.00 | 53 | 27 | 42 | 37 | 0 | 00 | 30.19 | 30.39 | 13 | OVC | 210 | | | 10.00 | 54 | 33 | 45 | 45 | 0 | 00 | 29.97 | 30.16 |
| 16 | OVC | 300 | | | 10.00 | 52 | 31 | 43 | 45 | 5 | 19 | 30.17 | 30.36 | 16 | OVC | 210 | | | 10.00 | 53 | 36 | 45 | 53 | 0 | 00 | 29.94 | 30.14 |
| 19 | OVC | 045 | | | 10.00 | 51 | 32 | 43 | 48 | 3 | 13 | 30.19 | 30.38 | 19 | OVC | 250 | | | 10.00 | 47 | 37 | 43 | 68 | 5 | 13 | 29.96 | 30.16 |
| 22 | BKN | 250 | | | 10.00 | 46 | 34 | 41 | 63 | 6 | 15 | 30.16 | 30.36 | 22 | OVC | 250 | | | 10.00 | 51 | 43 | 47 | 74 | 5 | 15 | 29.95 | 30.14 |
| SUNRISE: 0716 DEC 15 | | | | | | SUNSET: 1652 | | | | | | SUNRISE: 0720 DEC 21 | | | | | | SUNSET: 1655 | | | | | | | | | |
| 01 | BKN | 300 | | | 10.00 | 45 | 34 | 40 | 65 | 5 | 16 | 30.11 | 30.30 | 01 | OVC | 110 | | | 10.00 | 51 | 48 | 49 | 90 | 6 | 19 | 29.93 | 30.12 |
| 04 | OVC | 250 | | | 10.00 | 45 | 37 | 41 | 74 | 8 | 19 | 30.08 | 30.27 | 04 | OVC | 048 | | | 10.00 | 54 | 51 | 52 | 90 | 7 | 19 | 29.90 | 30.09 |
| 07 | BKN | 300 | | | 10.00 | 44 | 36 | 41 | 74 | 10 | 19 | 30.05 | 30.25 | 07 | OVC | 110 | | -RA | 10.00 | 55 | 52 | 53 | 90 | 10 | 18 | 29.86 | 30.06 |
| 10 | OVC | 300 | | | 10.00 | 56 | 41 | 49 | 57 | 13 | 21 | 30.02 | 30.21 | 10 | OVC | 160 | | | 10.00 | 58 | 54 | 56 | 87 | 13 | 19 | 29.85 | 30.04 |
| 13 | OVC | 300 | | | 10.00 | 65 | 47 | 55 | 52 | 16 | 21 | 29.90 | 30.09 | 13 | OVC | 050 | | RA BR | 4.00 | 59 | 57 | 58 | 93 | 9 | 20 | 29.78 | 29.98 |
| 16 | BKN | 300 | | | 10.00 | 67 | 47 | 56 | 49 | 21 | 21 | 29.83 | 30.02 | 16 | OVC | 047 | | | 10.00 | 62 | 59 | 60 | 90 | 17 | 20 | 29.72 | 29.92 |
| 19 | BKN | 250 | | | 10.00 | 64 | 50 | 56 | 61 | 18 | 21 | 29.80 | 29.99 | 19 | OVC | 015 | | | 10.00 | 64 | 60 | 62 | 87 | 14 | 22 | 29.72 | 29.91 |
| 22 | BKN | 250 | | | 10.00 | 63 | 52 | 57 | 68 | 16 | 22 | 29.80 | 29.99 | 22 | OVC | 025 | | | 10.00 | 65 | 60 | 62 | 84 | 15 | 22 | 29.74 | 29.93 |
| SUNRISE: 0717 DEC 16 | | | | | | SUNSET: 1653 | | | | | | SUNRISE: 0721 DEC 22 | | | | | | SUNSET: 1655 | | | | | | | | | |
| 01 | SCT | 190 | | | 10.00 | 61 | 52 | 56 | 72 | 16 | 22 | 29.79 | 29.98 | 01 | BKN | 240 | | | 10.00 | 64 | 59 | 61 | 84 | 9 | 24 | 29.77 | 29.96 |
| 04 | BKN | 250 | | | 10.00 | 61 | 52 | 56 | 72 | 11 | 22 | 29.80 | 30.00 | 04 | BKN | 220 | | | 10.00 | 57 | 55 | 56 | 93 | 6 | 20 | 29.82 | 30.02 |
| 07 | OVC | 280 | | | 10.00 | 58 | 51 | 54 | 78 | 6 | 25 | 29.87 | 30.06 | 07 | BKN | 300 | | MIFG | 9.00 | 52 | 52 | 52 | 100 | 0 | 00 | 29.90 | |
| 10 | BKN | 300 | | | 10.00 | 55 | 30 | 44 | 39 | 14 | 03 | 29.98 | 30.18 | 10 | OVC | 250 | | | 10.00 | 62 | 60 | 61 | 93 | 0 | 00 | 29.95 | 30.14 |
| 13 | OVC | 180 | | | 10.00 | 52 | 29 | 42 | 41 | 9 | 02 | 29.99 | 30.19 | 13 | OVC | 250 | | | 10.00 | 67 | 57 | 61 | 70 | 6 | 05 | 29.88 | 30.07 |
| 16 | OVC | 085 | | | 10.00 | 46 | 36 | 42 | 68 | 5 | 02 | 29.99 | 30.18 | 16 | OVC | 032 | | | 10.00 | 65 | 58 | 61 | 78 | 8 | 09 | 29.85 | 30.04 |
| 19 | OVC | 080 | | | 8.00 | 42 | 38 | 40 | 86 | 6 | 05 | 30.02 | 30.22 | 19 | OVC | 020 | | RA BR | 2.50 | 60 | 59 | 59 | 97 | 8 | 13 | 29.79 | 29.98 |
| 22 | OVC | 060 | | | 5.00 | 40 | 38 | 39 | 93 | 3 | 03 | 30.02 | 30.22 | 22 | OVC | 150 | | BR | 6.00 | 62 | 60 | 61 | 93 | 13 | 18 | 29.72 | 29.91 |
| SUNRISE: 0718 DEC 17 | | | | | | SUNSET: 1653 | | | | | | SUNRISE: 0721 DEC 23 | | | | | | SUNSET: 1656 | | | | | | | | | |
| 01 | OVC | 085 | | | 8.00 | 40 | 38 | 39 | 93 | 0 | 00 | 29.99 | 30.19 | 01 | OVC | 120 | | | 10.00 | 64 | 61 | 62 | 90 | 18 | 19 | 29.62 | 29.81 |
| 04 | SCT | 085 | | | 5.00 | 38 | 36 | 37 | 93 | 3 | 33 | 29.98 | 30.18 | 04 | OVC | 028 | | | 10.00 | 67 | 59 | 62 | 76 | 20 | 23 | 29.64 | 29.83 |
| 07 | SCT | 038 | | | 10.00 | 35 | 31 | 33 | 85 | 6 | 35 | 30.03 | 30.23 | 07 | BKN | 080 | | | 10.00 | 54 | 48 | 51 | 80 | 7 | 33 | 29.81 | 30.00 |
| 10 | BKN | 040 | | | 10.00 | 40 | 29 | 36 | 65 | 11 | 36 | 30.06 | 30.26 | 10 | FEW | 120 | | | 10.00 | 57 | 46 | 51 | 67 | 9 | 01 | 29.92 | 30.11 |
| 13 | BKN | 047 | | | 10.00 | 43 | 27 | 37 | 53 | 10 | 34 | 30.01 | 30.21 | 13 | SCT | 042 | | | 10.00 | 60 | 42 | 51 | 52 | 13 | 32 | 29.91 | 30.10 |
| 16 | OVC | 040 | | | 10.00 | 42 | 24 | 35 | 49 | 8 | 33 | 30.00 | 30.19 | 16 | SCT | 250 | | | 10.00 | 55 | 38 | 47 | 53 | 11 | 02 | 29.95 | 30.14 |
| 19 | FEW | 050 | | | 10.00 | 39 | 24 | 33 | 55 | 3 | 04 | 30.02 | 30.22 | 19 | OVC | 070 | | | 10.00 | 50 | 34 | 43 | 54 | 8 | 02 | 30.04 | 30.23 |
| 22 | CLR | NC | | | 10.00 | 31 | 26 | 29 | 82 | 0 | 00 | 30.03 | 30.23 | 22 | OVC | 065 | | | 10.00 | 48 | 34 | 42 | 59 | 6 | 03 | 30.07 | 30.26 |
| SUNRISE: 0718 DEC 18 | | | | | | SUNSET: 1653 | | | | | | SUNRISE: 0721 DEC 24 | | | | | | SUNSET: 1656 | | | | | | | | | |
| 01 | OVC | 055 | | | 10.00 | 32 | 27 | 30 | 82 | 0 | 00 | 30.05 | 30.24 | 01 | OVC | 044 | | | 10.00 | 47 | 33 | 41 | 58 | 0 | 00 | 30.07 | 30.27 |
| 04 | OVC | 095 | | | 10.00 | 33 | 26 | 30 | 75 | 0 | 00 | 30.04 | 30.24 | 04 | OVC | 050 | | | 10.00 | 46 | 37 | 42 | 71 | 0 | 00 | 30.09 | 30.28 |
| 07 | OVC | 100 | | | 10.00 | 34 | 25 | 31 | 70 | 3 | 28 | 30.07 | 30.27 | 07 | BKN | 250 | | | 10.00 | 44 | 36 | 41 | 74 | 3 | 14 | 30.15 | 30.34 |
| 10 | CLR | NC | | | 10.00 | 38 | 26 | 33 | 62 | 0 | 00 | 30.12 | 30.32 | 10 | BKN | 250 | | | 10.00 | 46 | 33 | 40 | 61 | 18 | 02 | 30.27 | 30.47 |
| 13 | OVC | 055 | | | 10.00 | 42 | 23 | 35 | 47 | 10 | 33 | 30.09 | 30.29 | 13 | BKN | 250 | | | 10.00 | 49 | 27 | 40 | 43 | 7 | 36 | 30.23 | 30.42 |
| 16 | BKN | 060 | | | 10.00 | 43 | 23 | 35 | 45 | 10 | 36 | 30.10 | 30.29 | 16 | BKN | 250 | | | 10.00 | 47 | 27 | 39 | 46 | 0 | 00 | 30.22 | 30.42 |
| 19 | CLR | NC | | | 10.00 | 35 | 26 | 32 | 70 | 0 | 00 | 30.16 | 30.36 | 19 | BKN | 250 | | | 10.00 | 39 | 29 | 35 | 67 | 3 | 13 | 30.26 | 30.46 |
| 22 | CLR | NC | | | 10.00 | 31 | 23 | 28 | 72 | 5 | 15 | 30.18 | 30.37 | 22 | SCT | 250 | | | 10.00 | 34 | 27 | 31 | 76 | 6 | 11 | 30.25 | 30.45 |

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2011 KRIC

WBAN # 13740

| HOUR (LST) | SKY COVER | CEILING 100's of FT. | SATELLITE | | WEATHER | TEMPERATURE °F | | | WIND | | PRESSURE (INCHES, HG) | | | | | | | | |
|------------------------------------------|-----------|-------------------------|---------------------------|-----------------------|---------|-----------------------|----------|-----------|----------|----------------------------|--------------------------|--------------------------|---------|--------------|---------|----------|-----------|----------|----------------------------|
| | | | Observation Time (LST) | Eff Cl'd Amt Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY (PCT) | SPEED (MPH) | DIRECTION Tens of Deg | STATION | SEA LEVEL | | | | | |
| | | | | | | | | | | | | | | | WEATHER | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY (PCT) |
| SUNRISE: 0722 DEC 25 SUNSET: 1657 | | | | | | 01 | CLR | NC | | | 10.00 | 33 | 28 | 31 | 82 | 5 | 19 | 30.22 | 30.42 |
| 04 | CLR | NC | | | | 10.00 | 34 | 31 | 33 | 89 | 0 | 00 | 30.18 | 30.38 | | | | | |
| 07 | FEW | 250 | | | | 10.00 | 34 | 29 | 32 | 82 | 3 | 20 | 30.17 | 30.37 | | | | | |
| 10 | OVC | 250 | | | | 10.00 | 43 | 37 | 40 | 79 | 14 | 20 | 30.15 | 30.35 | | | | | |
| 13 | OVC | 250 | | | | 10.00 | 51 | 35 | 44 | 54 | 9 | 21 | 30.04 | 30.23 | | | | | |
| 16 | BKN | 250 | | | | 10.00 | 54 | 32 | 44 | 43 | 11 | 21 | 29.95 | 30.15 | | | | | |
| 19 | SCT | 300 | | | | 10.00 | 47 | 36 | 42 | 66 | 11 | 23 | 29.90 | 30.10 | | | | | |
| 22 | CLR | NC | | | | 10.00 | 45 | 37 | 41 | 74 | 10 | 25 | 29.88 | 30.08 | | | | | |
| SUNRISE: 0722 DEC 26 SUNSET: 1657 | | | | | | 01 | CLR | NC | | | 10.00 | 42 | 32 | 38 | 68 | 9 | 27 | 29.89 | 30.08 |
| 04 | CLR | NC | | | | 10.00 | 42 | 26 | 36 | 53 | 8 | 30 | 29.97 | 30.17 | | | | | |
| 07 | CLR | NC | | | | 10.00 | 38 | 26 | 33 | 62 | 9 | 35 | 30.04 | 30.24 | | | | | |
| 10 | CLR | NC | | | | 10.00 | 47 | 24 | 38 | 41 | 15 | 35 | 30.17 | 30.37 | | | | | |
| 13 | FEW | 250 | | | | 10.00 | 50 | 24 | 40 | 36 | 7 | 31 | 30.15 | 30.35 | | | | | |
| 16 | BKN | 250 | | | | 10.00 | 51 | 24 | 40 | 35 | 6 | 36 | 30.12 | 30.31 | | | | | |
| 19 | SCT | 250 | | | | 10.00 | 38 | 27 | 34 | 65 | 0 | 00 | 30.14 | 30.33 | | | | | |
| 22 | BKN | 250 | | | | 10.00 | 36 | 28 | 33 | 73 | 3 | 15 | 30.13 | 30.32 | | | | | |
| SUNRISE: 0723 DEC 27 SUNSET: 1658 | | | | | | 01 | OVC | 200 | | | 10.00 | 38 | 31 | 35 | 76 | 6 | 18 | 30.06 | 30.26 |
| 04 | OVC | 170 | | | | 10.00 | 40 | 32 | 37 | 73 | 7 | 17 | 29.98 | 30.18 | | | | | |
| 07 | OVC | 150 | | | | 10.00 | 41 | 32 | 37 | 70 | 6 | 16 | 29.88 | 30.08 | | | | | |
| 10 | OVC | 090 | | | | 10.00 | 44 | 33 | 39 | 65 | 11 | 13 | 29.74 | 29.94 | | | | | |
| 13 | OVC | 027 | | | | 10.00 | 50 | 48 | 49 | 93 | 20 | 15 | 29.45 | 29.65 | | | | | |
| 16 | OVC | 040 | | | | 10.00 | 58 | 56 | 57 | 93 | 21 | 18 | 29.26 | 29.45 | | | | | |
| 19 | SCT | 065 | | | | 10.00 | 55 | 47 | 51 | 75 | 17 | 24 | 29.36 | 29.55 | | | | | |
| 22 | SCT | 250 | | | | 10.00 | 50 | 42 | 46 | 74 | 17 | 24 | 29.37 | 29.56 | | | | | |
| SUNRISE: 0723 DEC 28 SUNSET: 1659 | | | | | | 01 | CLR | NC | | | 10.00 | 46 | 36 | 42 | 68 | 14 | 27 | 29.39 | 29.58 |
| 04 | CLR | NC | | | | 10.00 | 43 | 32 | 38 | 65 | 11 | 26 | 29.48 | 29.67 | | | | | |
| 07 | FEW | 065 | | | | 10.00 | 41 | 31 | 37 | 68 | 10 | 26 | 29.56 | 29.75 | | | | | |
| 10 | FEW | 070 | | | | 10.00 | 48 | 31 | 41 | 52 | 11 | 25 | 29.64 | 29.84 | | | | | |
| 13 | SCT | 065 | | | | 10.00 | 51 | 24 | 40 | 35 | 16 | 26 | 29.63 | 29.82 | | | | | |
| 16 | FEW | 070 | | | | 10.00 | 50 | 20 | 38 | 31 | 15 | 28 | 29.68 | 29.88 | | | | | |
| 19 | CLR | NC | | | | 10.00 | 44 | 18 | 35 | 35 | 6 | 27 | 29.78 | 29.98 | | | | | |
| 22 | CLR | NC | | | | 10.00 | 37 | 19 | 31 | 48 | 5 | 03 | 29.84 | 30.04 | | | | | |
| SUNRISE: 0723 DEC 29 SUNSET: 1659 | | | | | | 01 | SCT | 250 | | | 10.00 | 30 | 22 | 27 | 72 | 7 | VR | 29.86 | 30.05 |
| 04 | CLR | NC | | | | 10.00 | 27 | 22 | 25 | 81 | 3 | 14 | 29.85 | 30.05 | | | | | |
| 07 | SCT | 250 | | | | 10.00 | 26 | 22 | 25 | 85 | 6 | 19 | 29.89 | 30.09 | | | | | |
| 10 | BKN | 250 | | | | 10.00 | 40 | 27 | 35 | 60 | 0 | 00 | 29.92 | 30.11 | | | | | |
| 13 | OVC | 250 | | | | 10.00 | 46 | 29 | 39 | 52 | 6 | 16 | 29.85 | 30.05 | | | | | |
| 16 | BKN | 250 | | | | 10.00 | 48 | 26 | 39 | 42 | 7 | 19 | 29.83 | 30.03 | | | | | |
| 19 | BKN | 250 | | | | 10.00 | 43 | 28 | 37 | 56 | 5 | 16 | 29.83 | 30.03 | | | | | |
| 22 | SCT | 110 | | | | 10.00 | 37 | 30 | 34 | 76 | 6 | 17 | 29.81 | 30.01 | | | | | |
| SUNRISE: 0723 DEC 30 SUNSET: 1700 | | | | | | 01 | CLR | NC | | | 10.00 | 37 | 28 | 34 | 70 | 7 | 19 | 29.81 | 30.01 |
| 04 | CLR | NC | | | | 10.00 | 38 | 28 | 34 | 67 | 3 | 20 | 29.83 | 30.02 | | | | | |
| 07 | FEW | 250 | | | | 10.00 | 31 | 27 | 30 | 85 | 7 | 17 | 29.85 | 30.05 | | | | | |
| 10 | BKN | 250 | | | | 10.00 | 43 | 31 | 38 | 63 | 0 | 00 | 29.89 | 30.09 | | | | | |
| 13 | BKN | 250 | | | | 10.00 | 53 | 33 | 44 | 47 | 9 | 15 | 29.81 | 30.01 | | | | | |
| 16 | SCT | 250 | | | | 10.00 | 57 | 34 | 46 | 42 | 7 | 16 | 29.77 | 29.96 | | | | | |
| 19 | SCT | 300 | | | | 10.00 | 53 | 36 | 45 | 53 | 11 | 17 | 29.76 | 29.95 | | | | | |
| 22 | OVC | 065 | | | | 10.00 | 55 | 37 | 47 | 51 | 14 | 19 | 29.77 | 29.96 | | | | | |

| HOUR (LST) | SKY COVER | CEILING 100's of FT. | SATELLITE | | WEATHER | TEMPERATURE °F | | | WIND | | PRESSURE (INCHES, HG) | | | | | | | | |
|------------------------------------------|-----------|-------------------------|---------------------------|-----------------------|---------|-----------------------|----------|-----------|----------|----------------------------|--------------------------|--------------------------|---------|--------------|---------|----------|-----------|----------|----------------------------|
| | | | Observation Time (LST) | Eff Cl'd Amt Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY (PCT) | SPEED (MPH) | DIRECTION Tens of Deg | STATION | SEA LEVEL | | | | | |
| | | | | | | | | | | | | | | | WEATHER | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY (PCT) |
| SUNRISE: 0724 DEC 31 SUNSET: 1701 | | | | | | 01 | OVC | 200 | | | 10.00 | 54 | 40 | 47 | 59 | 16 | 19 | 29.71 | 29.90 |
| 04 | BKN | 150 | | | | 10.00 | 52 | 42 | 47 | 69 | 10 | 19 | 29.69 | 29.88 | | | | | |
| 07 | BKN | 250 | | | | 10.00 | 50 | 44 | 47 | 80 | 7 | 22 | 29.70 | 29.89 | | | | | |
| 10 | FEW | 035 | | | | 10.00 | 58 | 44 | 51 | 60 | 9 | 27 | 29.76 | 29.95 | | | | | |
| 13 | FEW | 035 | | | | 10.00 | 63 | 35 | 50 | 35 | 16 | 28 | 29.72 | 29.91 | | | | | |
| 16 | BKN | 060 | | | | 10.00 | 62 | 35 | 49 | 37 | 15 | 28 | 29.81 | 30.00 | | | | | |
| 19 | CLR | NC | | | | 10.00 | 51 | 36 | 44 | 57 | 3 | 28 | 29.89 | 30.08 | | | | | |
| 22 | CLR | NC | | | | 10.00 | 44 | 35 | 40 | 71 | 0 | 00 | 29.94 | 30.13 | | | | | |

3-HOURLY OBSERVATION NOTES

Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, W = Vertical Visibility = 8/8

Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No Ceiling detected.

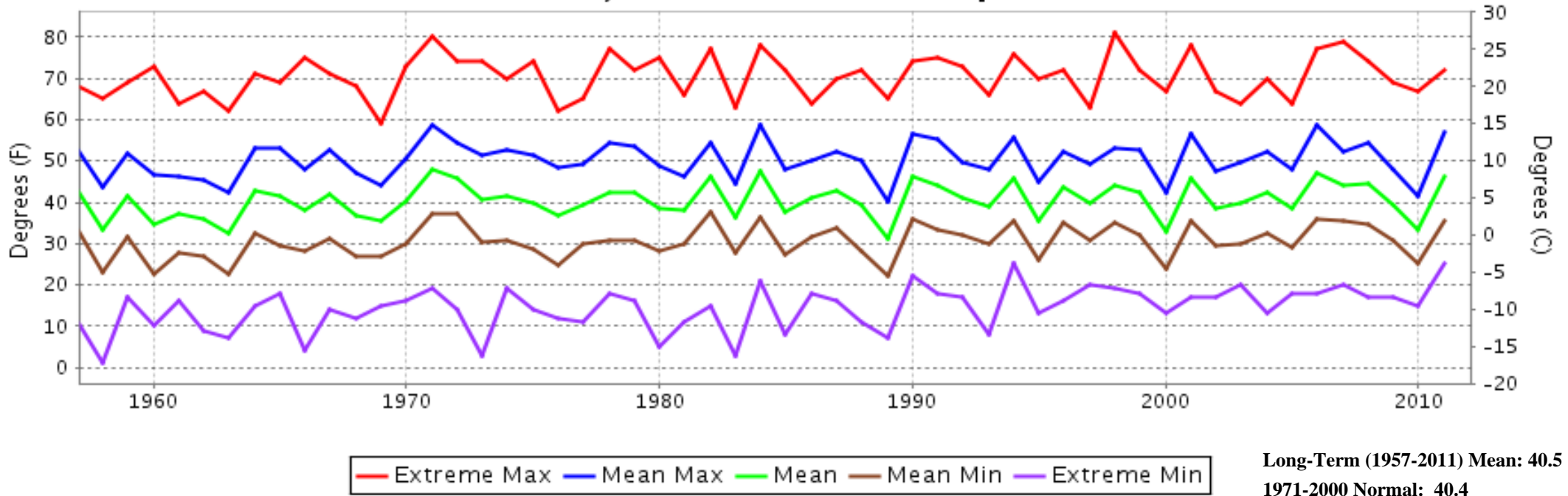
& = Original observation contained additional weather elements.

See page 3 for additional notes.

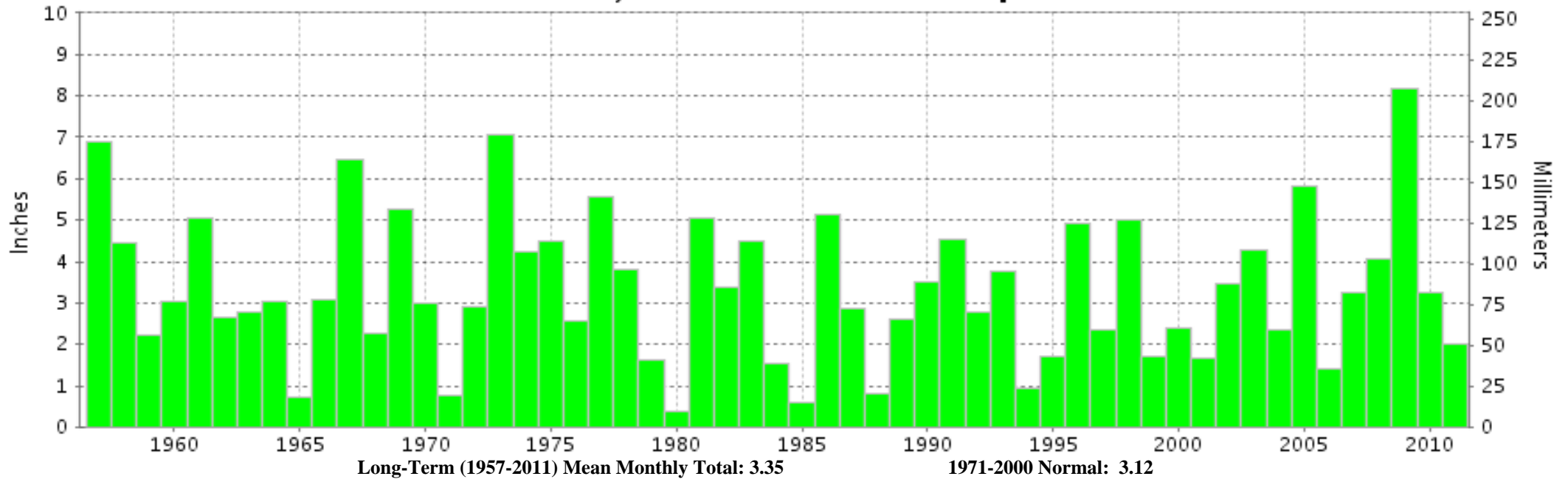
SUMMARY BY HOUR

| HOUR (LST) | AVERAGES | | | | | | | | | | RESULTANT WIND (MPH) | |
|------------|------------|-------------|----------|-----------|----------|-------------------|-----------------------|-----------|--------------------|------------------|----------------------|-----------|
| | CEILOMETER | EFF CLD AMT | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY | PRESSURE (Inches, HG) | | VISIBILITY (Miles) | WIND SPEED (MPH) | SPEED | DIRECTION |
| | | | | | | | STATION | SEA LEVEL | | | | |
| 01 | | | 43 | 35 | 39 | 76 | 30.01 | 30.20 | 9.84 | 6 | 4 | 22 |
| 02 | | | 43 | 35 | 39 | 76 | 30.01 | 30.21 | 9.74 | 6 | 4 | 23 |
| 03 | | | 43 | 35 | 39 | 76 | 30.02 | 30.21 | 9.45 | 5 | 4 | 22 |
| 04 | | | 42 | 35 | 39 | 77 | 30.01 | 30.21 | 9.32 | 5 | 4 | 22 |
| 05 | | | 42 | 35 | 39 | 78 | 30.02 | 30.21 | 9.16 | 5 | 4 | 22 |
| 06 | | | 41 | 34 | 38 | 78 | 30.03 | 30.22 | 9.23 | 6 | 3 | 21 |
| 07 | | | 40 | 34 | 38 | 79 | 30.04 | 30.24 | 9.43 | 6 | 3 | 22 |
| 08 | | | 41 | 35 | 38 | 79 | 30.05 | 30.25 | 9.02 | 5 | 3 | 21 |
| 09 | | | 45 | 36 | 41 | 72 | 30.07 | 30.26 | 9.27 | 6 | 3 | 22 |
| 10 | | | 48 | 36 | 43 | 63 | 30.08 | 30.27 | 9.69 | 8 | 3 | 20 |
| 11 | | | 51 | 35 | 44 | 57 | 30.07 | 30.26 | 9.94 | 8 | 4 | 23 |
| 12 | | | 53 | 35 | 45 | 52 | 30.04 | 30.23 | 9.87 | 8 | 4 | 23 |
| 13 | | | 54 | 35 | 46 | 50 | 30.01 | 30.21 | 9.81 | 9 | 3 | 23 |
| 14 | | | 55 | 35 | 46 | 48 | 29.99 | 30.19 | 10.00 | 10 | 4 | 24 |
| 15 | | | 55 | 35 | 46 | 48 | 29.98 | 30.18 | 9.54 | 9 | 4 | 23 |
| 16 | | | 54 | 35 | 46 | 52 | 29.99 | 30.18 | 9.77 | 8 | 4 | 23 |
| 17 | | | 52 | 36 | 45 | 56 | 29.99 | 30.19 | 9.90 | 6 | 3 | 21 |
| 18 | | | 49 | 37 | 44 | 64 | 29.99 | 30.20 | 9.68 | 5 | 3 | 19 |
| 19 | | | 48 | 37 | 43 | 67 | 30.00 | 30.20 | 9.47 | 5 | 3 | 19 |
| 20 | | | 46 | 36 | 42 | 69 | 30.01 | 30.21 | 9.74 | 6 | 3 | 20 |
| 21 | | | 45 | 36 | 41 | 71 | 30.02 | 30.21 | 9.68 | 6 | 3 | 19 |
| 22 | | | 45 | 36 | 41 | 73 | 30.02 | 30.21 | 9.52 | 6 | 3 | 21 |
| 23 | | | 44 | 36 | 40 | 73 | 30.02 | 30.22 | 10.00 | 6 | 4 | 22 |
| 24 | | | 44 | 35 | 40 | 73 | 30.02 | 30.21 | 9.61 | 5 | 4 | 22 |

RICHMOND, VA DECEMBER Temperatures



RICHMOND, VA DECEMBER Precipitation





DECEMBER 2011
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA-National Weather Service / Department Of Transportation-Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

DIRECTOR

NCDC now offers an annual online subscription for the **Edited Local Climatological Data Publication**. When you purchase this subscription service, you will have **immediate online access** to all previous publications back to July 1996 and all publications thereafter until the expiration of the subscription. Your subscription is valid for one year after purchase. **The total cost for online delivery (including back issues) is significantly less than the cost for offline delivery.**

To order this and other subscriptions online with your credit card, go to: www.ncdc.noaa.gov and choose subscriptions.

We welcome your questions or comments, please contact us at:

(828) 271-4800, option 2

Fax Number : 828-271-4876

TDD : (828) 271-4010

or Email : ncdc.info@noaa.gov

Local Climatological Data is available at www.ncdc.noaa.gov

NOAA\National Climatic Data Center
Attn: User Engagement & Services Branch
151 Patton Avenue
Asheville, NC 28801-5001
OFFICIAL BUSINESS, PENALTY FOR PRIVATE USE \$300

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19

For address correction, please return a photocopy of this page to Subscription Services indicating changes